

REMARKS**INTRODUCTION:**

In accordance with the foregoing, claims 1, 3, 6, 16-18 and 28 have been amended. The amendment to the claims is supported by embodiments at, for example, page 5, lines 18-33 and page 9, lines 29-32 of the Applicant's application. No new matter is being presented, and approval and entry are respectfully requested

Claims 1-29 are pending and under consideration.

REQUEST FOR EXAMINER'S OFFICIAL NOTICE:

The Office Action Summary sheet PTO-326 of the Office Action, mailed January 15, 2003, incorrectly states that the instant Office Action is a Final Office Action. As shown in an enclosed copy of the file history retrieved from the U.S. Patent and Trademark Office's PAIR system, the instant Office Action is a non-final rejection. Accordingly, Examiner's official notice to that fact is courteously solicited.

REJECTION UNDER 35 U.S.C. §102:

Claims 1-3, 5-10, 12-15, 19-23 and 26-29 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cuccia (US 6,337,719). This rejection is respectfully traversed.

Contrary to the assertion of the Examiner, Cuccia appears to disclose a method of updating compound electronic program guide (EPG) information. That is, in Cuccia, a controller "successively selects all received transport streams...checks whether the SI of the transport stream comprises EPG information, and if so, incorporates it in a compound EPG which is stored in the storage mean." (See column 4, lines 14-20).

In other words, Cuccia appears to successively gather, in order, EPG information from all accessible channels and stores them, as a compound EPG, into a storage unit. While Cuccia discloses that this operation may take place while the TV-set is in a stand-by mode, because of the extended time required to access all channels, Cuccia discloses that, more likely, "[a] convenient time for [this operation and] updating the EPG information is at night." (See column 4, lines 36-39). That is, before or after a power-on of the TV-set. Accordingly, Cuccia discloses utilizing a rechargeable battery and accomplishing the above operation when the TV-set is switched off. (See column 4, lines 56-64).

After acquiring and storing the EPG information, Cuccia appears to update the EPG information “just after or before [a] power-on, stand-by...[or] while the user is zapping through various TV-stations,” in every twenty-four hour period. (See column 5, lines 1-5 and 34-35). However, in Cuccia, the EPG information is updated successively, that is, Cuccia appears to update the EPG information **without** preference or priority.

In column 5, lines 20-57, Cuccia discloses that EPG information, for Tr (i.e., channel 1) to TrMax (i.e., maximum number of channels available), is successively updated when a tuner is available (i.e., in a decoupled state), that is, when the TV-set is turned off, or on a stand-by mode. However, when this operation is “interrupted by the TV-receiver entering the coupled state, e.g., when the user activates the receiver from the stand-by mode, [in] that case, the process is resumed as soon as the decoupled state is re-entered again, taking the last value of Tr as a starting point.” (Emphasis added, see column 5, lines 52-57). That is, in Cuccia, an updating of EPG information is performed in order, i.e., channel 1, 2, 3...n, and when the updating is interrupted, for example, while updating the channel 5, it is resumed from the channel 5 and so on.

Finally, Cuccia appears to disclose that “scanning behavior of the user [can be] utilized to collect the EPG information.” However, Applicant respectfully points out that this phrase must be interpreted with the surrounding disclosures, and not be taken out of context. That is, when interpreted within the context, see column 5, lines 1-12, Cuccia appears to further disclose that the EPG information may be updated while the user is “zapping” through the channels, that is, this zapping behavior of the user is utilized to extract and update the EPG information from the channels zapped (searched) by the user. Then, the updated EPG information for the zapped channels may be stored, so that in a subsequent updating of the EPG information for **all** channels, updating of the zapped channels may be omitted to shorten the overall updating time. In other words, where a user zaps through channels 5, 6 and 7, updating of the EPG information may begin by searching through the channels 1, 2, 3, 4, 8, 9...n, skipping the channels 5, 6 and 7.

In summary, Cuccia appears to disclose a method of updating EPG information, including successively (1, 2, 3, 4,...n) acquiring the EPG information for all accessible channels, storing them as a compound EPG in a storage unit, and successively (1, 2, 3, 4,...n) updating the compound EPG, for example, every 24 hour period, while the TV-set is turned off or in a stand-by mode.

However, Applicant respectfully points out that Cuccia does not disclose or suggest a method of acquiring program guide information for channels, comprising "...acquiring the program guide information for the received program received on the preferential channel; and acquiring the remaining program guide information...for other channels...wherein the remaining program guide information is acquired according to a prioritized or preferential channel search," (Emphasis added) as recited in independent claim 1, and similarly recited in independent claims 3 and 28 of Applicant's application.

In other words, it appears that Cuccia does not disclose or suggest, for example, "determining the sequence of accessing channels by proximity of channels to the channel tuned...", as recited in Applicant's claim 7, "searching channels upward or downward from the channels tuned...", as recited in Applicant's claim 10, "searching the channels in order of priority according to a probability distribution of channels," as recited in Applicant's claim 11, or "searching for accessible channels...based upon a commend received, the detected guide information, and a relation to the tuned channel," as recited in Applicant's claim 28.

Furthermore, it appears that Cuccia also does not disclose or suggest a program guide method comprising "writing and displaying a program list including program guide information of channels tuned before a program guide commend is executed,...acquiring program guide information being broadcast...for accessible channels in a background operation while the program list is referred to..." (Emphasis added) as recited in Applicant's independent claim 12 and similarly recited in Applicant's independent claim 19.

Applicant respectfully directs the Examiner's attention to FIGS. 4A-4C of Applicant's application.

That is, according to an aspect of the present invention, while a user is referring to program guide information for a channel 53 in a program list 410, program guide information for other channels, for example, for channels 52 and 54 as shown in FIG. 4B and then channels 51 and 56 as shown in FIG. 4C, are acquired in the background, for example, in real time, while the program list 410 is referred to by the user. As illustrated in these drawings, an acquisition may be prioritized by acquiring the program guide information for channels that are in proximity of a current channel tuned, for example, upward and/or downward from the channel 53 tuned. Applicant respectfully notes that these aspects are neither disclosed nor suggested by Cuccia.

Simply put, Applicant respectfully notes that Cuccia does not disclose every element of the Applicant's claims 1-29. In fact, in most cases, it appears that Cuccia does not disclose any of the elements recited in Applicant's claims. This is because while Cuccia appears to disclose successively (1, 2, 3, 4,...n) storing and updating EPG information of all channels, where the TV-set is turned-off at night or in a stand-by mode, as described above, an aspect of the present invention is to acquire EPG information of channels in real time and acquire them in a prioritized manner so as to reduce the time required to acquire the desired EPG information for prioritized channels.

In order for a document to anticipate a claim, the document must teach each and every element of the claim. See MPEP §2131. Accordingly, since Cuccia does not teach the features recited in claims 1-3, 5-10, 12-15, 19-23 and 26-29, as stated above, withdrawal of the § 102(e) rejections is earnestly solicited. In addition, claims 4, 11, 16-18 and 24-25 are allowable at least due to their dependency on independent claims 3, 12 and 19, as well as for the additional features recited therein and reasons stated below, and withdrawal of the §103(a) rejections for these claims is also respectfully requested.

REJECTION UNDER 35 U.S.C. §103:

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cuccia. Claims 11, 16-17 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cuccia in view of Saitoh (US 5,444,499). Additionally, claims 18 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cuccia in view of Saitoh and further in view of Mugura et al. (US 6,243,142). These rejections are respectfully traversed.

Applicant respectfully notes that for the above listed dependent claims, the Examiner cites Cuccia for disclosing all of the features recited in independent claims 3, 12 and 19, and cites, for example, Saitoh or Mugura et al. for suggesting the features recited in dependent claims 4, 11, 16-18 and 24-25. However, Applicant has shown above that Cuccia does not disclose or suggest each and every element of the independent claims 3, 12 and 19. Therefore, Examiner's §103(a) rejections are moot, at least due to the fact that the cited references, as combined, still do not disclose or suggest all of the elements recited in claims 4, 11, 16-18 and 24-25.

In other words, the combined references do not teach or suggest all the claim limitations as required by MPEP §2142 – 2143 to maintain the §103(a) rejection. It is also noted that under MPEP §2143, that fact that the claimed invention is within the capabilities of one skilled in the art is not sufficient by itself to establish *prima facie* obviousness. It is also well established that the Examiner may not rely on general principles of engineering to fill in the gaps in the teaching of the cited references. See Akzo v. Dupont, 810 F.2d 1148, 1 USPQ.2d 1704 (Fed. Cir. 1987).

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

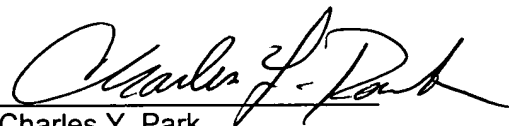
Respectfully submitted,

STAAS & HALSEY LLP

Date: _____

4/11/03

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND claims 1, 3, 6, 16-18 and 28 as follows. The remaining claims are reprinted, as a convenience to the Examiner, as they stand before the U.S. Patent and Trademark Office.

1. (FIVE TIMES AMENDED) A method of acquiring program guide information for channels, comprising:

receiving the program guide information and a program on [one]a preferential channel of the channels, and acquiring the program guide information for the received program received on the [one]preferential channel; and

acquiring the remaining program guide information being broadcast for other channels by scanning the other channels to acquire the remaining program guide information from other program guide information contained in ones of the other channels while the program being received is not displayed, wherein the remaining program guide information is acquired according to a prioritized or preferential channel search.

2. (AS TWICE AMENDED) The method of acquiring program guide information for channels as claimed in claim 1, wherein said acquiring the program guide information for each channel comprises obtaining the program guide information of the accessible channels by a tuner while the program received by the tuner is not displayed.

3. (THREE TIMES AMENDED) A program guiding method in which a program list for channels is displayed in response to a program guide command, the method comprising:

acquiring program guide information of accessible channels being broadcast in response to the program guide command, wherein the program guide information is acquired according to a prioritized or preferential channel search;

storing the acquired program guide information;

writing a program list on the basis of the stored program guide information; and

displaying the written program list to a user in response to the program guide command:

4. (AS TWICE AMENDED) The program guiding method as claimed in claim 3, further comprising providing a message indicating that the user must wait until the program list is written.

5. (AS THREE TIMES AMENDED) The program guiding method as claimed in claim 3, further comprising:

determining whether the program guide information is effective by comparing a current time to an effective period of stored program guide information, and

proceeding to said writing the program list when the stored program guide information is effective, before said acquiring the program guide information.

6. (THREE TIMES AMENDED) The program guiding method as claimed in claim 3, wherein said acquiring the program guide information [~~comprises~~]includes:

writing and displaying a program list including the program guide information of channels tuned before a program guide command is executed, from the stored program guide information, and

acquiring the program guide information for each channel by searching for the accessible channels in a background operation while the program list is referred to.

7. (AS TWICE AMENDED) The program guiding method as claimed in claim 3, wherein said acquiring the program guide information comprises determining the sequence of accessing channels by proximity of channels to the channel tuned before the program guide command is executed.

8. (AS TWICE AMENDED) The program guiding method as claimed in claim 7, wherein said acquiring the program guide information comprises determining the order of priority of channels having the same proximity to the channel tuned before the program guide command is executed according to a channel up/down command input before corresponding channels are accessed.

9. (NOT AMENDED HEREIN) The program guiding method as claimed in claim 7, wherein an upward or downward direction is preferential when no channel up/down command is executed.

10. (AS TWICE AMENDED) The program guiding method as claimed in claim 3, wherein said acquiring the program guide information comprises searching channels upward or downward from the channel tuned before the program guide command is executed.

11. (AS TWICE AMENDED) The program guiding method as claimed in claim 3, further comprising writing a probability distribution of tuned channels, wherein said acquiring the program guide information comprises searching the channels in an order of priority according to a probability distribution of channels.

12. (AS THREE TIMES AMENDED) A program guiding method in which a program list for each channel is displayed in response to a program guide command, the method comprising:

writing and displaying a program list including program guide information of channels tuned before a program guide command is executed, from stored program guide information;
acquiring program guide information being broadcast for each channel by searching for accessible channels in a background operation while the program list is referred to;
storing the acquired program guide information for each channel;
rewriting a program list on the basis of the stored program guide information; and
displaying the rewritten program list to a user.

13. (AS TWICE AMENDED) The program guiding method as claimed in claim 12, wherein said acquiring the guide information comprises determining a sequence of accessing channels by the proximity of channels to the channel tuned before the program guide command is executed.

14. (AS TWICE AMENDED) The program guiding method as claimed in claim 12, wherein said acquiring the guide information comprises determining an order of priority of channels having the same proximity to the channel tuned according to a channel up/down command input before corresponding channels are accessed.

15. (NOT AMENDED) The program guiding method as claimed in claim 13, wherein an upward or downward direction is preferential when no channel up/down command is applied.

16. (THREE TIMES AMENDED) The program guiding method as claimed in claim [11]12, wherein said acquiring the guide information comprises searching channels upward or downward from the channel tuned before the program guide command is executed.

17. (TWICE AMENDED) The program guiding method as claimed in claim [11]12, further comprising writing a probability distribution of tuned channels, and wherein the channels are searched for in the order of priority according to the probability distribution of channels.

18. (THREE TIMES AMENDED) The program guiding method as claimed in claim [11]12, wherein said displaying the written program list comprises
displaying a message indicating a status of program guide information in response to the program guide information of a corresponding channel not being stored, and
displaying the program guide information of a corresponding channel in response to acquiring the program guide information of channels tuned before the program guide command is executed being acquired in said acquiring the program guide information.

19. (AS FOUR TIMES AMENDED) An apparatus for acquiring program guide information of accessible channels and guiding program guide information acquired in response to a program guide command in a multichannel receiver, the apparatus comprising:

- a tuner tuning a channel;
- a program guide information detector detecting program guide information introduced via said tuner;
- a memory storing the program guide information for each channel detected by said program guide information detector;
- a key input introducing a user manipulation command such as a program guide command or a channel search command;
- a microprocessor, in response to the manipulation command input via said key input, that writes a program list based on program guide information stored in said memory, and searches for accessible channels to obtain program guide information being broadcast by controlling said tuner in a background operation while a user refers to the program list; and
- a character signal generator generating a character signal corresponding to the program list written by said microprocessor and providing the character signal to a screen.

20. (AS TWICE AMENDED) The apparatus for acquiring and displaying a program guide command as claimed in claim 19, wherein said microprocessor determines the sequence of accessing channels by the proximity between channels to the channel tuned before the program guide command is executed.

21. (AS TWICE AMENDED) The program guiding apparatus as claimed in claim 20, wherein said microprocessor determines the order of priority of channels having the same proximity according to a user's channel up/down command input via said key input before corresponding channels are accessed.

22. (AS TWICE AMENDED) The program guiding apparatus as claimed in claim 21, wherein said microprocessor searches for channels preferentially in an upward or downward direction when no channel up/down command is executed.

23. (AS TWICE AMENDED) The program guiding apparatus as claimed in claim 19, wherein said microprocessor searches for channels upward or downward from the channel tuned before the program guide command is executed.

24. (AS TWICE AMENDED) The program guiding apparatus as claimed in claim 19, further comprising a probability estimator calculating a probability that channels are to be selected, by accumulating a number of times which the channels are tuned, wherein said microprocessor searches for the channels in an order of priority according to a probability of tuning by the channels calculated by said probability estimator.

25. (AS TWICE AMENDED) The program guiding apparatus as claimed in claim 19, wherein said microprocessor provides to said character signal generator a status message on a message screen in response to the program guide information of a corresponding channel not being stored.

26. (NOT AMENDED) The method as recited in claim 1, wherein the accessible channels include channels accessed by a tuner and channels provided by a line input.

27. (AS ONCE AMENDED) The program guiding method as recited in claim 3, wherein said acquiring the program guide information comprises determining the sequence of accessing channels by proximity of the channels to the channel tuned and by a channel up/down command input just before a channel search is determined.

28. (THREE TIMES AMENDED) An apparatus comprising:
means for detecting program guide information being broadcast corresponding to channels in relation to a tuned channel; and
means for searching for accessible channels of the channels having corresponding other program guide information based upon a command received, the detected program guide information, and a relation to the tuned channel.

29. (NOT AMENDED) The apparatus according to claim 28, wherein the means for searching searches the accessible channels in a preferential manner.